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ABSTRACT

The Tennessee Higher Education Commission, in cooperation with the governing boards and institutions, surveyed 1973-74 graduates of public colleges and universities to (1) provide information on career tracks and post-college activity at various degree levels, and (2) develop instruments and information systems procedures for the acquisition and analysis of such data on a recurring basis. Responses were received from 4,154 graduates, better than 53 percent of the sample. Results of the study focus on characteristics of graduates, post-graduate activities, evaluation of educational experience, and open-ended questions such as what the graduates considered the most positive and worthwhile experience. This report contains answers to the survey questions and a statement of implications for decision-making for Tennessee higher education. (Author/LBH)

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A SURVEY OF GRADUATES

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APRIL, 1977

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TENNESSEE HIGHER EDUCATION COMMISSION

NASHVILLE, TENNESSEE

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SURVEY SUMMARY

The survey of 1973-74 graduates of Tennessee public institutions of higher education produced certain interesting results concerning those graduates:

1. The majority are first generation college graduates.
2. Over 70 percent of the respondents worked at least part-time while earning their degrees.
3. Most completed their degrees within a reasonable length of time.
4. The percentage of graduates unemployed declines in proportion to degree level.
5. The majority stay in Tennessee to work, although the percentage declines somewhat among higher degree levels: associate, 94%; bachelor's, 74%; master's, 73%; and doctorate, 67%.
6. Most of those continuing their education are doing so in Tennessee: associate, 91%; bachelor's, 78%.
7. Most graduates continuing their studies gave their degree programs high rating for preparing them for future study. More than 96% of all graduates felt they had been well prepared to continue their education.
8. Most of those employed are working in their field of preparation. The percentage is highest among graduate degree holders and lowest among bachelor degree recipients.
9. Working graduates were generally very satisfied with the preparation they received. Only a small percentage (8%) rated the preparation as "poor".
10. Respondents tended to rate educational and intellectual growth highest in importance as reasons for pursuing a degree. A high degree of growth was experienced in these areas, overall.
11. The greatest growth resulting from college experience came in the area of cultural and aesthetic development though few graduates perceived that purpose as the original reason for choosing to work toward a degree.

12. Graduates identified practical experiences and faculty ability and attitude as the most positive aspects of the college experience.

13. Recommendations from graduates indicate concern about the quality of education. More opportunities for practical experiences, more practical-oriented instructors, and more flexible curriculum are suggested by the respondents.

MEASURING EFFECTIVENESS FOR HIGHER EDUCATION

"Who Needs College?" is the question posed on the cover of the April 26, 1976 issue of Newsweek. The feature article, like a number of recent articles in the popular press, is filled with case studies of honor graduates from prestigious schools who are either unemployed or underemployed.

In assessing the value and effectiveness of higher education at both the statewide and institutional level, professional educators and the lay public alike are tempted to make inferences on the basis of isolated and exceptional cases. It is easy to question the value and effectiveness of higher education after exposure to certain illustrations in the media. While such stories do not fairly represent the employment picture for graduates by degree level, field of study, or by geographical region, they are sufficient to raise questions in the minds of the public. These questions which the higher education community is ill-equipped to answer concern: the benefit of a college education, what happens to college students when they graduate, and how effectively colleges are achieving their goals. A credible response to such questions requires the support of systematic and comprehensive data. The state agency possessing no systematic data base has little foundation from which to deal with these concerns.

For assessing the value and effectiveness of educational efforts, one source of data available to colleges and universities is that provided by graduates. Subsequent activity and evaluative responses of graduates can be important indicators of the outcomes of the college experience. The use of graduate activity and opinion as measures of educational effectiveness has certain limitations, but these data outweigh no data at all.

ABSTRACT

In order to address concerns and questions about the effectiveness of higher education in Tennessee, the Tennessee Higher Education Commission, with the cooperation of the governing boards and institutions, conducted a survey of 1973-74 graduates of public colleges and universities. A representative sampling of 7,800 graduates from all institutions, programs, and degree levels was surveyed. Responses were received from 4,154 graduates, better than 53% of the sampling. The overall purposes of this survey were:

1. To provide information on career tracks and post-college activity at various degree levels.

2. To develop instruments and information systems procedures for the acquisition and analysis of such data on a recurring basis.

Results of the study focus on these more specific areas:

1. Characteristics of Graduates. What characteristics mark graduates at each degree level regarding age, sex, ethnic background, time required for degree, work patterns while attending school, and sources of financial support?

2. Post-Graduate Activities. What percentage of graduates at various degree levels go on to further study and where? Of those employed, how many are working in their field of preparation? What percentage, if any, are neither employed nor in school?

3. Evaluation of Educational Experience. What is the degree of expressed satisfaction with academic experience? What contributions did educational programs make to career preparation and to further study? What incentives were primary in seeking the degree? What aspects proved most important in personal growth?

4. Open-Ended Questions. What did graduates consider the most positive and worthwhile experience? What suggestions did they have for improving the quality of the eduational experience in the degree program just completed?

This report contains answers to the survey questions and a statement of implications for decision-making for Tennessee higher education.

CHARACTERISTICS OF GRADUATES

In assessing graduate activity and evaluative response, the first step is a look at characteristics that mark graduates at each degree level. These characteristics include ethnic background, sex, age, educational level of parents, student employment, years required for degree, and means of financing the college experience. As each of these is discussed, reference is made to the survey item from which the information is taken. The complete survey is in Appendix A.

How can graduates be characterized by ethnic background and sex? (See Appendix A, item #1). Graduates of Tennessee public institutions of higher education are predominantly white and male at all levels (See Table 1), but especially at the doctoral level where very few women and almost no blacks receive degrees. The Commission master file of graduates shows the following representation of black graduates: associate - 9 percent, bachelor's - 8.5 percent, and master's - 9.5 percent. Data received in this survey resulted in a slightly lower percentage.

Table 1

Distribution of Graduates by Ethnic Background and by Sex

	Percentages by Racial Grouping			Percentages by Sex	
Degrees	Black	White	Other	Male	Female
Associate (N=894)	6.2	88.5	4.3	56.	44.
Bachelor (N-2163)	5.2	92.8	2.0	54.	46.
Master (N=658)	7.1	85.7	7.2	52.	48.
Doctorate (N=333)	1.8	94.9	3.3	82.	18.

What age groups do graduates represent? (See Appendix A, item #1) The majority of graduates are in traditional college age brackets although a noticeable number of individuals received their degrees later in life. Forty percent of the undergraduate degrees were awarded to persons 25 or older (See Table 2).

Table 2

Distribution of Graduates by Age

	Percentages by Age			
Degrees	21-24	25-29	30-39	40 and older
Associate (N=914)	60.0	15.5	15.1	8.5
Bachelor (N=2192)	59.4	28.6	7.5	5.3
Master (N=683)	2.6	48.5	29.4	19.4
Doctorate (N=350)	0.3	42.6	36.3	20.9

What was the educational attainment level of graduates' parents? (See Appendix A, item #2). The majority of respondents at all levels were first generation college graduates. This was especially true at the associate degree level (See Table 3). Educational attainment of mothers was quite close to that of fathers for each degree level. Males were more likely to be first generation college graduates than females.

Table 3

Distribution of Graduates by Educational Level of Father

Degree	Percentage by Educational Level: Graduated From College	Attended College	Did Not Attend College
Associate (N=644)	13	18	69
Bachelor (N=1665)	26	23	51
Master (N=678)	22	19	59
Doctorate (N=348)	30	20	50

What were the work patterns of graduates while pursuing the degree? (See Appendix A, item #5). About 70 percent of the graduates at the associate, bachelor's, and doctoral level worked while earning their degrees. At the masters level, over 80 percent of the graduates worked while attending school (See Table 4). Males were more likely to work while earning their degrees than females, especially at the associate and bachelor's levels.

Table 4

Distribution of Graduates by Work

Degree	Percentages by Extent of Work: No Work	1-20 Hours	Over 20 hours
Associate (N=905)	30.6	37.7	31.7
Bachelor (N=2163)	30.7	28.6	40.7
Master (N=676)	18.6	58.5	22.9
Doctorate (N=350)	28.3	35.7	36.0

Are graduates completing their degree programs on schedule? (See Appendix A, item #4). At the associate level, 57 percent of the graduates completed their degrees in two years or less with over 90 percent completing the degree within four years. Over 80 percent of the bachelor's graduates finished within a four-to-five year period. At the master's level, about 52 percent completed their work in two years or less with better than 83 percent finishing within a two-to-four year period. About 75 percent of the doctoral graduates received their degrees within a two-to-four year period. Graduates at all levels are completing their degrees within a reasonable length of time, especially considering the large number of graduates working while attending college.

What caused graduates to be interrupted in their attendance? (See Appendix A, item #6). Insufficient financial support was the primary cause of a break in attendance. Financial reasons accounted for about 80 percent of the responses at the associate level, 61 percent of the responses at the bachelor's level, 72 percent at the master's level, and 84 percent of the responses at the doctoral level.

How did graduates finance their education? (See Appendix A, item #7). Undergraduates depended greatly on family support; graduate students were more self supporting (See Table 5).

Table 5

Distribution of Major Sources of Financial Support*

Degree	Percentages by Source Identified: Parent/Relative Spouse	Employment	Government Benefits	Other**
Associate (N=1177)	29.4	24.8	15.0	31.8
Bachelor (N=2985)	37.6	24.5	11.3	26.4
Master (N=828)	17.1	46.6	12.6	23.7
Doctorate (N=508)	24.2	30.9	14.8	30.1

* Some graduates indicated more than one source.
** Includes loans, scholarships, grants, and unspecific sources of assistance.

POST-GRADUATION ACTIVITY

The salient question for this survey concerns what graduates are doing and where. Other questions need answers: How many graduates are working in their fields of preparation, and how many are working out of their fields, and why? How satisfied are graduates with the preparation they received for their work?

What are graduates doing? (See Appendix A, item #16 and #17). The majority of graduates surveyed are employed full-time (See Table 6). However, at the associate level, about 25 percent of the graduates who are employed are going to school simultaneously.

Table 6

Post-Graduation Activity

Degree	Percentage of Activity Reported: Employed	Studying	Unemployed
Associate (N=718)	69.0	21.4	9.6
Bachelor (N=2011)	85.0	8.0	7.0
Master (N=656)	91.0	4.0	5.0
Doctorate (N=339)	98.2	1.8	0.0

Where are graduates working? (See Appendix A, item #19). The working location of respondents indicates the greater mobility of doctoral graduates (See Table 7).

Table 7

Location of Working Graduates

Degree	Percentage Reporting Location: Same Community	Elsewhere in Tennessee	Out-of-state
Associate (N=538)	57	37	6
Bachelor (N=1747)	40	34	26
Master (N=584)	42	31	27
Doctorate (N=300)	33	34	33

Where are graduates continuing their education? (See Appendix A, Item #13). The majority of associate and bachelor's degree recipients continuing their education are doing so in Tennessee public institutions (See Table 8).

Table 8

Location of Graduates Continuing Education

	Percentage Reporting Location			
Degree	Same Tennessee Public Institution	Another Tennessee Public Institution	Private Tennessee Institution	Out-of-State Institution
Associate (N=845)	12	66	13	9
Bachelor (N=1429)	51	22	4	23

What are graduates earning? (See Appendix A, item #22). Differences in gross earnings are reported in Table 9.

Table 9

Starting Salaries of Working Graduates

	Percentage Reporting Gross Earnings		
Degree	$7,499 or less	$7,500 - $9,999	Over $10,000
Associate (N=510)	50.6	38.0	11.4
Bachelor (N=1715)	40.5	39.7	19.8
Master (N=572)	41.6	31.3	27.1
Doctorate (N=301)	15.6	20.9	63.5

Are graduates employed in their fields of preparation? (See Appendix A, item #23). The majority of graduates are working within their fields (See Table 10). Only 17 percent of bachelor's graduates hold the same position they held as students. Among associate, master's, and doctoral graduates, between one third and one fourth work in the same jobs they had while pursuing a degree (See Appendix A, item #22).

Table 10

Employment in Field of Preparation

Degree	Percentage Working In Field	Percentage Working Outside of Field	
		Unable to Find Work in Field	Other Reasons
Associate (N=426)	71	14	15
Bachelor (N=1499)	64	17	19
Master (N=468)	80	9	11
Doctorate (N=233)	90	4	6

How satisfied are graduates with preparation for work and for further study? (See Appendix A, items #15 and #21). The majority of graduates considered their educational experience as good preparation for both work and study (See Table 11). The results show that those who continue to study express greater satisfaction with educational preparation than do those who work.

Table 11

Graduate Evaluation of Educational Preparation

Degree	Current Activity	Percentage of Evaluation Ratings: Good-Excellent	Average	Poor
Associate	Work (N=517)	75	17	8
	Study(N=489)	80	18	2
Bachelor	Work (N=1740)	61	28	11
	Study(N=814)	72	24	4
Master	Work (N=576)	78	18	4
	Study(N=166)	85	14	1
Doctorate	Work (N=301)	84	13	3
	Study(N=51)	80	18	2

EVALUATION OF EDUCATIONAL EXPERIENCE

Evaluation of educational experience has two important aspects: (1) satisfaction with major area of study and with overall degree program, and (2) personal purpose and personal progress.

Evaluation of Major and Overall Degree Program. (See Appendix A, item #8). How satisfied are graduates with their major area of study? How do they evaluate their overall degree program? Graduates at all degree levels are satisfied with their education (See Table 12).

Table 12

Graduate Satisfaction with Major and With Degree Program

	Major Area Percentage		Degree Program Percentage	
Degree	Satisfaction	Dissatisfaction	Satisfaction	Dissatisfaction
Associate (N=886)	96	4	94	6
Bachelor (N=2131)	91	9	89	11
Master (N=660)	97	3	95	5
Doctorate (N=319)	96	4	94	6

An obvious question associated with these responses is how expressed satisfaction varies with certain academic variables. When we ask graduates to express satisfaction with their college experience, is such an expression related to field of study, race, academic performance, or age? If we are to use graduate feedback as an indicator of institutional performance, knowledge of such relationships will be important.

A statistical analysis using responses from bachelor degree recipients failed to confirm any relation between expressed satisfaction and age, hours worked per week, GPA, level of parental financial support, race, or field of study.[1] However, some variance of satisfaction did appear in levels of extensive extracurricular involvement.

The implication of this analysis is that graduate satisfaction can be used as an indicator of institutional performance without concern for

[1]A description of this analysis can be found in Correlates of Student Satisfaction: A Statewide Perspective, a paper presented at the 1976 AIR Forum by E. Grady Bogue, G. Clifford Gillespie, and William E. Troutt.

variance due to certain socio-economic or academic variables. Perhaps our findings will promote the use of graduate feedback as an important indicator in assessing the outcomes of higher education.

Evaluation of Educational Purpose and Personal Growth. What importance do graduates place on various reasons for pursuing a degree? How well do graduates feel their college experience has helped them in achieving these goals?

Graduates were asked to indicate their personal perception of the importance of seven possible reasons for pursuing a degree (See Appendix A, item #10). The reasons receiving the highest ratings by graduates were educational growth, i.e., "Understanding of a particular field of knowledge and preparation for further information," and vocational and professional growth, i.e., "Preparation for employment in a particular vocational or professional area" (See Table 14).

Perception of college purpose does vary with certain academic and socio-economic variables. A statistical test of bachelor degree responses in positive relationships between:

1. Grade-point average and an emphasis on educational and intellectual purposes.
2. Out-of-class activity and the importance of social and personal goals.
3. Major area and emphasis on vocational goals.
4. Entering another degree program and the importance of educational goals.

As might have been expected, students with high grades and those continuing their studies emphasize the educational and intellectual aspect of college; socially active students emphasize the social side of college; and students studying for a profession emphasize the professional preparation of a degree program.

Table 14

Evaluation of Educational Purpose and Perceived Growth

Degree	Purposes	No.	Percentage Rating High on Purpose Importance and on Perceived Growth: Intellectual Growth	Social Growth	Aesthetic Cultural Growth	Educational Growth	Vocational Professional Growth	Personal Growth	Skill Growth
Associate	Expected	(889)	70.3	71.0	31.4	85.3	77.7	72.1	15.1
	Achieved	(458)	63.5	29.2	74.2	63.2	67.0	30.6	1.5
Bachelor	Expected	(2132)	78.1	70.9	42.4	82.9	76.2	72.7	28.9
	Achieved	(1076)	69.8	38.8	68.7	55.7	68.9	24.1	2.8
Master	Expected	(663)	77.6	58.8	29.7	86.1	88.6	63.2	27.2
	Achieved	(313)	57.5	22.6	73.2	73.2	61.3	25.9	1.2
Doctorate	Expected	(334)	79.9	50.7	19.5	89.0	91.6	58.9	29.9
	Achieved	(170)	56.4	15.5	83.1	82.5	59.4	26.7	.6

Graduates also indicated how they had progressed or grown in the seven areas just used to define educational purpose. College contribution to educational growth was rated highly at all levels. Among associates, master's, and doctoral graduates, the predominant positive rating was given to aesthetic and cultural growth, i.e., "Awareness and appreciation of the literature, music, art, and drama of your own culture and others." This was not an area graduates had indicated as a primary purpose for attending college. At the bachelor degree level, progress in educational, intellectual, and vocational growth was reported stronger than in other areas.

Graduates' perception of growth resulting from the college experience did vary with two variables -- out-of-class activity and grade-point average. A statistical test of bachelor graduate responses showed out-of-class involvement most highly correlated with perception of special skills development, i.e., "development of a particular skill in music, art, athletics, etc." Grade-point average had its most positive correlation with perceived educational and intellectual growth and a negative correlation with the areas of social, personal, and special skill growth.

Graduates indicated that they place more importance on the educational and vocational aspects of college-going than on other reasons for college attendance. Graduates felt they had grown in these areas but not necessarily as much as in other areas. Responses indicated overall that the greatest progress attained while pursuing a degree came in educational, aesthetic, and cultural, vocational and professional, and intellectual areas.

OPEN-ENDED RESPONSES

The survey offered graduates an opportunity to furnish specific feedback on their college experience by responding to two open-ended questions (See

Appendix A, item #28). Open-ended responses brought to life with color and emotion many of the findings of the survey.

Graduates were first asked, "What was the most positive and worthwhile experience for you in the degree you just completed?" Responses to this question convey more feeling than a checked response and a percentage distribution. Comments such as "the sheer joy of being educated," "professors that cared," and "finding my purpose for being" articulate the satisfaction of graduates with their education. A disenchanted graduate's response that he "would have learned more at a home for the aged" graphically displays an overall sense of frustration and dissatisfaction.

Open-ended responses were frequently comments about "real-world" experiences, e.g., student teaching, internships, and work-study. Among bachelor's graduates and among other degree levels as well, opportunities for experience were valued. For example, one education graduate commented, "books cannot begin to teach what actual work with children can." Also reported among positive experiences were the ability and attitude of faculty, e.g., "the profs I had were just great; you wouldn't find a better faculty anywhere," and the opportunity for personal contact, e.g., "the chance to meet some of the greatest people in the world."

Graduates seemed especially anxious to respond to the second question: "What one suggestion would you have for improving the quality of the educational experience for students enrolled in the degree program you just completed?" A great number of responses centered on a concern for practical, "real-world" experiences. Graduates suggested "more and earlier field experiences" and "more practical instruction, less theory and philosophy." One graduate suggested that they "eliminate liberal arts majors unless they will prepare a student for a specified profession."

Concern for practical experience of faculty members was also prevalent. One graduate suggested that we "dump all the professors who have not worked outside the academic world." A number of graduates suggested that we "keep a 'closer eye' on the quality of instructors" and "get rid of deadwood (some tenured faculty)."

A number of suggestions concerned program flexibility. Comments made by graduates included: "Too many unnecessary courses kill the desire to learn," "Required courses were a waste of time," and "What are we supposed to be concerned about . . . an educated person or an obstacle course?"

In summary, graduates were most pleased with opportunities for "real-world" experiences, personal contact, and the ability and attitude of faculty. Graduates suggested the quality of education could be best improved by providing more opportunities for practical experiences, more practical instruction, more practical-oriented instructors, and a more flexible curriculum.

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This survey has a number of policy implications for higher education decision-making in Tennessee. Survey data speak boldly to the following areas of concern.

Retention. Survey findings show minorities underrepresented at all degree levels, but does not indicate the extent of minority retention. The survey was not designed to collect information on those not completing a degree. Many individuals enroll in college with no intention of graduating and many of them may be minority students. Retention studies underway at the Commission support the tentative conclusion, though, that minority students are not as successful as non-minority students in progressing toward a degree. Survey findings could be interpreted to reflect this conclusion.

Longitudinal research is now underway addressing the question of mirority retention.

Age of Clientele. Forty percent of the undergraduate degrees were awarded to individuals 25 or older. This data coincides with current literature on changing patterns of college attendance.

Planning for the future of Tennessee higher education should include a broader concept of the age of clientele served.

Student Work Patterns. At least 70 percent of all Tennessee public college graduates work, with about half of them averaging over 20 hours a week.

Colleges and universities need continually to be aware of student work patterns when developing class schedules and student personnel services.

Student Financial Support. The primary source of financial support for undergraduates was parents or relatives. A greater number of master's degree students were supported by their employment. As inflation continues to shrink the earning power of many Tennessee families, parent support will become increasingly more difficult. Financial reasons were the major cause of students having a break or more than one term in their degree programs.

This situation dictates that more attention be given to rising tuition costs.

Extra-Curricular Activities. Graduate satisfaction with college experiences and graduate growth in a number of areas were both highly correlated with participation in extra-curricular activities. This does not imply a

causal relationship between out-of-class activity and satisfaction and growth, but it does suggest that these activities are an important part of the college experience.

> Graduates who had participated heavily in extra-curricular activities tended to be very satisfied with their degree programs and felt they had grown a great deal in a variety of areas.

Curriculum. Graduates were generally satisfied with their majors, their overall degree programs, and their preparation for work or additional schooling. They did, however, offer some excellent suggestions on how Tennessee higher education might be improved. Suggestions focused on improvements in curricula. "Give us more 'real-life' experiences," they said, "and make the curriculum more flexible." Graduates felt they needed more practical orientation in their courses and more opportunities to experience what the "real world" was like. Internships, student teaching, and cooperative education were highlights of the collegiate experience for many students.

> Institutions might consider providing more opportunities for field experiences and more options in developing degree programs.

Employment. Reports in the popular press notwithstanding, the employment rate of graduates increases with higher level degrees.

> Graduate degree holders are employed and the overwhelming majority are working in their field of preparation.

Location. As a provider of manpower for the state, there is evidence Tennessee higher education is performing well. Even at the doctoral level,

where graduates are most mobile, two-thirds of the graduates are employed in Tennessee. The economic return to the state of these graduates would seem to be substantial. Future research may want to address this question.

> Tennessee graduates are finding employment opportunities in their field of preparation in state, often in the community where they attended school.

Value of a College Education. This study shows that graduates found economic value in possessing college degrees, particularly advanced degrees. Initially, the most important motivating forces for the college experience were educational or vocational, but graduates concluded that their greatest growth was in other areas.

> Most graduates found the great contribution of college was in their growth in cultural areas -- their awareness and appreciation of the literature, music, art, and drama of their own and other cultures.

The response of these graduates emphasizes that the collegiate experience contributes not only to economic educational vitality but to personal enrichment as well. Tennessee public colleges and universities need not be troubled about this being their primary impact on students. In fact, it ought to be proclaimed boldly that this is a significant part of what higher education is about and where an important impact is being made on the lives of Tennessee citizens.

APPENDIX A

SURVEY INSTRUMENT

SURVEY OF RECENT GRADUATES

OF

TENNESSEE COMMUNITY COLLEGES AND UNIVERSITIES

22

STATE OF TENNESSEE

SURVEY OF RECENT GRADUATES

TO THE GRADUATES OF TENNESSEE COMMUNITY COLLEGES AND UNIVERSITIES

As a recent graduate of one of this state's community colleges or universities, you are in good position to help us assess the impact and value of the college experience.

This letter covers a questionnaire designed to obtain your perceptions on the value of your college experience as it contributed to your personal and social growth and to your readiness for further education or employment. At a time when evaluation of program priorities is a critical task facing both government and college officials, your response is important.

You'll note that the questionnaire requires, for the most part, that you check the appropriate option for each question. And the final question provides for a more flexible and specific response if you desire. The questionnaire can be completed in 10 to 15 minutes.

We have included your social security number so that we can check our mailing list and hopefully achieve a high rate of response for this important effort. We are surveying only a representative sample of recent graduates; you can appreciate, therefore, the importance of your response. Your name and identity will in no way be reflected in any reports or use of the data. Your complete anonymity is assured.

Please take this time to help us learn from your experience so that we can make Tennessee colleges and universities even more effective in their service to students.

Ray N. Nicks, Chancellor
State Board of Regents

G. Wayne Brown, Executive Director
Higher Education Commission

Edward J. Boling, President
University of Tennessee

INSTRUCTIONS: (1) MOST ITEMS REQUIRE ONLY A CHECK MARK. CHECK OR ENTER REQUESTED DATA FOR EACH QUESTION THAT APPLIES.

(2) AFTER COMPLETING QUESTIONNAIRE, STAPLE OR TAPE EDGES AND PLACE IN MAIL. POSTAGE IS PREPAID.

STATE OF TENNESSEE

SURVEY OF RECENT GRADUATES

1. NAME, SSN, AND ADDRESS. MAKE ANY CORRECTIONS NECESSARY.

2. PARENT GUARDIAN HIGHEST EDUCATIONAL LEVEL

Mother	Father	
☐	☐	Less than high school
☐	☐	High school graduate
☐	☐	Some college or technical school
☐	☐	Community college graduate
☐	☐	Senior college graduate
☐	☐	Some graduate or professional work
☐	☐	Received master's degree
☐	☐	Received doctoral degree or professional (M.D., L.L.B., or J.D.)
☐	☐	Unknown

3. FROM THE CODE LIST ON PAGE 7 IDENTIFY YOUR PARENTS'/GUARDIANS' USUAL JOB OCCUPATION AND ENTER THE TWO DIGIT CODE NUMBER IN THE SPACES PROVIDED HERE. IF RETIRED/DECEASED, ENTER WHAT THE JOB WAS.

☐☐ Mother ☐☐ Father

4. TIME TO COMPLETE DEGREE YOU EARNED IN 1973-74 (TOTAL ELAPSED TIME FROM FIRST COURSE WORK UNTIL GRADUATION).

- ☐ 2 years or less
- ☐ 2 - 4 years
- ☐ 4 - 6 years
- ☐ 6 - 10 years
- ☐ More than 10 years

5. INDICATE AVERAGE HOURS WORKED PER WEEK WHILE ATTENDING COLLEGE FOR THIS DEGREE

- ☐ Did not work
- ☐ 1 - 10
- ☐ 11 - 20
- ☐ 21 - 30
- ☐ 31 - 40
- ☐ More than 40

6. IF YOU HAD A BREAK IN ATTENDANCE OF MORE THAN ONE TERM, CHECK REASON(S) FOR THIS BREAK.

- ☐ Had no break longer than one term
- ☐ Insufficient financial support
- ☐ Placed on academic probation/suspension
- ☐ Called to military or public service
- ☐ Decided I did not want to continue
- ☐ Personal or family reasons
- ☐ Sickness, injury, health reasons (yourself or family)

7. CHECK THE IMPORTANCE OF EACH OF THE FOLLOWING IN FINANCING THE DEGREE YOU EARNED IN 1973-74.

Major Support	Minor Support	Not a Support	
☐	☐	☐	Support from parents or relatives
☐	☐	☐	Support from spouse
☐	☐	☐	Employment or personal savings (including work study)
☐	☐	☐	NDEA/NDSL loan, bank loan, or other loan
☐	☐	☐	GI Bill, social security benefits, federal government school or grants
☐	☐	☐	State or private scholarship or grant
☐	☐	☐	Other--please specify

8. GENERAL EVALUATION OF YOUR ACADEMIC PROGRAM

For Overall Degree		For Your Major Field
☐	Highly satisfied	☐
☐	Generally satisfied	☐
☐	Generally dissatisfied	☐
☐	Highly dissatisfied	☐

9. INDICATE YOUR ACADEMIC STANDING UPON GRADUATION

FOR ASSOCIATE AND BACHELOR'S GRADUATES

- ☐ Mostly A's, some B's (3.5 - 4.0)
- ☐ Mostly B's, some A's (3.0 - 3.4)
- ☐ Mostly B's, some C's (2.5 - 2.9)
- ☐ Mostly C's, some B's (2.0 - 2.4)

FOR MASTER'S AND DOCTORAL GRADUATES

- ☐ 3.75 - 4.00
- ☐ 3.50 - 3.74
- ☐ 3.25 - 3.49
- ☐ 3.00 - 3.24

FOR LAW GRADUATES

- ☐ Mostly A's, some B's
- ☐ Mostly B's, some A's
- ☐ Mostly B's, some C's
- ☐ Mostly C's, some B's

10. THERE ARE MANY REASONS FOR PURSUING EDUCATION, SOME OF WHICH ARE LISTED BELOW. ON THE LEFT, CHECK THE RELATIVE IMPORTANCE OF EACH PURPOSE FOR THE DEGREE YOU COMPLETED IN 1973-74. ON THE RIGHT, CHECK THE LEVEL OF PROGRESS OR GROWTH YOU ACHIEVED AS A RESULT OF YOUR COLLEGE EXPERIENCE.

Importance						Progress				
None	Some	Moderate	High	Very High		None	Some	Moderate	High	Very High
☐	☐	☐	☐	☐	Intellectual Growth: Your ability to understand and use concepts and principles from several broad areas of learning.	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	Social Growth: Your understanding of other people and their views; your experience in relating to others.	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	Aesthetic and Cultural Growth: Your awareness and appreciation of the literature, music, art, and drama of your own culture and others.	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	Educational Growth: Your understanding of a particular field of knowledge; your preparation for further education.	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	Vocational and Professional Growth: Your preparation for employment in a particular vocational or professional area.	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	Personal Growth: Your development of attitudes, values, beliefs, and a philosophy of life; your understanding of yourself as a person; your ability to be realistic and adaptable to make decisions about your own future.	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	Special Skill Growth: Your development of a particular skill in music, art, athletics, etc.	☐	☐	☐	☐	☐

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11. FOR EACH OF THE ACTIVITIES GIVEN BELOW, INDICATE WHETHER YOU PARTICIPATED WHILE WORKING ON THE DEGREE YOU EARNED IN 1973-74 AND CHECK THE LEVEL OR FREQUENCY.

Activity	Frequency of Participation				
	None	Some	Moderate	Frequent	Very Frequent
Contributor to art exhibition or displays	☐	☐	☐	☐	☐
Performed in music groups (choir, band, orchestra, opera)	☐	☐	☐	☐	☐
Member of publications staff (annual, newspaper, literary)	☐	☐	☐	☐	☐
Member of campus religious organization	☐	☐	☐	☐	☐
Member of student social organization (fraternity, sorority)	☐	☐	☐	☐	☐
Member of student government, dormitory council, etc.	☐	☐	☐	☐	☐
Member of intercollegiate athletic team	☐	☐	☐	☐	☐
Participated in intramural athletics	☐	☐	☐	☐	☐
Member of campus related service or professional club	☐	☐	☐	☐	☐
Participated in drama, debate, or theater activity	☐	☐	☐	☐	☐

12. SINCE GRADUATION HAVE YOU PARTICIPATED IN OTHER FORMAL EDUCATIONAL ACTIVITY? CHECK ANY THAT APPLY. IF NONE, LEAVE BLANK AND GO TO QUESTION 17.

- ☐ Have participated in non-credit courses offered by university/college, by community agency, or by profession or business.
- ☐ Have taken courses for credit but am not enrolled for another degree. GO TO QUESTION 17.
- ☐ Have enrolled in another degree program. GO TO QUESTION 13.

13. YOU INDICATED YOU WERE ENROLLED IN ANOTHER DEGREE PROGRAM. INDICATE LOCATION AND TYPE OF INSTITUTION.

- ☐ School from which I graduated in 1973-74
- ☐ Public college/university in Tennessee
- ☐ Private college/university in Tennessee
- ☐ Institution out of state

14. INDICATE WHAT DEGREE YOU ARE SEEKING. IF YOUR MAJOR FOR THIS DEGREE IS NOT THE SAME AS THE MAJOR YOU COMPLETED IN 73-74 DEGREE WRITE THE NEW MAJOR IN SPACE PROVIDED.

- ☐ Associate
- ☐ Bachelor's _____
- ☐ Master's _____ (use only if you changed majors)
- ☐ Specialist
- ☐ Doctorate
- ☐ Professional (law, medicine, etc.)

15. INDICATE HOW WELL YOU FEEL YOUR PREVIOUS EDUCATION PREPARED YOU FOR WORK OR CURRENT DEGREE.

- ☐ Excellent preparation
- ☐ Good preparation
- ☐ Fair preparation
- ☐ Poor preparation. Indicate in what way you were poorly prepared.

16. INDICATE YOUR ENROLLMENT STATUS IN CURRENT DEGREE PROGRAM.

- ☐ Full-time--not holding a job (GO TO 79)
- ☐ Full-time--holding full or part-time job (GO TO 17)
- ☐ Part-time--not holding a job (GO TO 29)
- ☐ Part-time--holding full or part-time job (GO TO 17)

17. INDICATE CURRENT EMPLOYMENT STATUS.

- ☐ Holding full-time job (GO TO 18)
- ☐ Holding part-time job (GO TO 27)
- ☐ Unemployed (GO TO 29)

18. HOW LONG DID IT TAKE YOU TO FIND YOUR FIRST JOB AFTER YOU BEGAN LOOKING?

- ☐ Was already working in it while enrolled in school
- ☐ 0 - 2 months
- ☐ 3 - 4 months
- ☐ 5 - 6 months
- ☐ Over 6 months

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19. WHERE IS YOUR JOB LOCATED?

- ☐ In same community or general area as school I graduated from in 1973-74
- ☐ In Tennessee
- ☐ Out of state

20. HOW DID YOU LEARN OF YOUR FIRST JOB?

- ☐ Was already working in it
- ☐ Cooperative education program
- ☐ College placement office
- ☐ Professional placement office
- ☐ Public or private employment agency
- ☐ Newspaper advertisement
- ☐ Direct contact with employer
- ☐ Faculty contact or referral
- ☐ Contact through friend or relative
- ☐ Other: please specify _____

21. INDICATE HOW WELL YOU FEEL YOUR MAJOR DEGREE PROGRAM PREPARED YOU FOR YOUR FIRST JOB.

- ☐ Excellent preparation
- ☐ Good preparation
- ☐ Fair preparation
- ☐ Poor preparation. Indicate in what way you were poorly prepared.

22. INDICATE STARTING ANNUAL SALARY OF FIRST FULL-TIME JOB.

- ☐ Less than $6,000 per year
- ☐ $6,000 to $7,499 per year
- ☐ $7,500 to $9,999 per year
- ☐ $10,000 to $14,999 per year
- ☐ $15,000 to $19,999 per year
- ☐ $20,000 to $29,999 per year
- ☐ $30,000 or above

23. IF YOU ARE EMPLOYED OUTSIDE YOUR MAJOR FIELD OF STUDY, INDICATE PRINCIPAL REASON.

- ☐ Am employed in my field (GO TO NEXT QUESTION)
- ☐ Never planned to work in that field
- ☐ Could not find a job in that field
- ☐ Decided I did not like work in that field
- ☐ Developed a new career interest
- ☐ Too little opportunity for advancement
- ☐ An graduate of Arts and Sciences field that is difficult to relate to a specified job

24. DID YOU HAVE TO TAKE SOME TYPE OF CERTIFYING, LICENSING, OR QUALIFYING EXAMINATION AS A CONDITION FOR HOLDING YOUR CURRENT JOB?

- ☐ Yes
- ☐ No

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25. FROM THE LIST GIVEN ON THIS PAGE, GIVE THE TWO DIGIT CODE FOR YOUR JOB/OCCUPATION.

☐☐ GO TO QUESTION 29

26. IN QUESTION 17 YOU INDICATED THAT YOU WERE EMPLOYED PART-TIME. INDICATE REASON FOR WORKING PART-TIME.

- ☐ Attending college for further study
- ☐ Unable to hold full-time work because of health or personal reasons
- ☐ Did not need or want full-time work
- ☐ Awaiting assignment to a full-time job already secured
- ☐ Unable to find full-time job
- ☐ Other: please specify and GO TO 28

27. IN QUESTION 17 YOU INDICATED THAT YOU WERE UNEMPLOYED. INDICATE REASON FOR UNEMPLOYED STATUS.

- ☐ Unable to work because of health or personal reasons
- ☐ Do not need or want full-time work at this time
- ☐ Recently released, laid off, or furloughed
- ☐ Awaiting assignment to full-time job already secured
- ☐ Searching for full-time job but unable to find one at present
- ☐ Other: please specify

GO TO QUESTION 28

LIST OF JOB OCCUPATION CODES FOR QUESTIONS 3 and 25.

01 Accountant
02 Architect
03 Computer Specialist
04 Engineer
05 Judge
06 Lawyer
07 Mathematician/Statistician
08 Librarian
09 Life/Physical Scientist
10 Physician or Health Professional
11 Nurse, Dietitian, Therapist
12 Health Technologist/Technician
13 Religious Worker
14 Social Scientist
15 Social Worker
16 Teacher: College/University
17 Teacher: Elementary/Secondary
18 Vocational & Education Counselor
19 Actor
20 Designer
21 Editor or Reporter
22 Painter or Sculptor
23 Musician
24 Public Relations Person
25 Manager/Administrator
26 Salesworker
27 Clerical and Related Worker
28 Craftsman/Related Worker
29 Machine Operative
30 Transport Equipment Operative
31 Non-Farm Laborer
32 Farmer/Farm Manager
33 Farm Laborer
34 Service Worker
35 Housewife/Homemaker
36 Law Enforcement/Fire Control
37 Military Service
38 Other

28. THESE LAST TWO QUESTIONS PROVIDE AN OPPORTUNITY FOR YOU TO FURNISH SPECIFIC AND CONCRETE FEEDBACK THAT WILL HELP TO EVALUATE AND IMPROVE THE COLLEGE EDUCATIONAL EXPERIENCE. THERE ARE A NUMBER OF DIMENSIONS THAT AFFECT THE QUALITY OF THE COLLEGE EXPERIENCE--ABILITY AND ATTITUDE OF FACULTY AND STAFF, ADEQUACY OF FACILITIES AND EQUIPMENT, OPPORTUNITY FOR PERSONAL CONTACT, OPPORTUNITY FOR SOCIAL AND CULTURAL EXPERIENCES, FLEXIBILITY AND CHALLENGE OF ACADEMIC PROGRAMS, ABILITY AND ATTITUDES OF FELLOW STUDENTS. AS YOU REFLECT ON THESE AND OTHER FACTORS. . .

a. WHAT WAS THE MOST POSITIVE AND WORTHWHILE EXPERIENCE FOR YOU IN THE DEGREE YOU JUST COMPLETED?

b. WHAT ONE SUGGESTION WOULD YOU HAVE FOR IMPROVING THE QUALITY OF THE EDUCATIONAL EXPERIENCE FOR STUDENTS ENROLLED IN THE DEGREE PROGRAM YOU JUST COMPLETED?

STAPLE OR TAPE EDGES OF COMPLETED QUESTIONNAIRE AND PLACE IN MAIL.
YOUR COOPERATION IN THIS SURVEY IS APPRECIATED.

8

FIRST CLASS
PERMIT NO. 4030
NASHVILLE, TENN.

BUSINESS REPLY MAIL

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY

TENNESSEE HIGHER EDUCATION COMMISSION
908 ANDREW JACKSON BUILDING
NASHVILLE, TN. 37219

APPENDIX B

SURVEY RATIONALE

SURVEY RATIONALE

What factors justify the conduct of this survey and what benefits are expected? Assessment of the effectiveness of the educational process is of importance to many people. The purposes of higher education are seen differently by different publics and the most important public in this regard is the student. There are incentives in both the professional and public arenas for knowledge about graduate satisfaction.

Interest in the Relationship between College Education and Employability

During the 1960's higher education was prominently viewed as the quickest route to social mobility, to better jobs, and higher earnings. Such views, held by the American public, were not discouraged by members of the higher education community. At present, this perspective on the role of higher education is under close public scrutiny.

After reviewing the higher education budget requests some members of the Tennessee Legislature indicated an interest in the employment record of graduates. Also, public interest in the relationship between college education and job market continues to be stimulated by articles in the public press. For example, a 1975 issue of the Wall Street Journal had this front page article: "Cold, Cruel, World--For the Class of '75, The Search for a Job May be Long and Hard."[1] Such stories, prevalent in popular publications such as Time and Newsweek, are sufficient to raise questions in the minds of legislators and other public officials.

The problem, by no means limited to the public press, receives front page attention from professional publications also. The March 31, 1975, issue of

the Chronicle of Higher Education had an article entitled "Valuing an Education: Is the Old Yardstick Obsolete--Economic Advantages of Degree Seen Fading."[2] A conversation between Caroline Bird, author of the new book, The Case Against College, and Ernest Boyer, Chancellor of the State University of New York, was reported in Change magazine[3] and entitled "Is College Necessary?" Together Bird and Boyer explored the changing reasons for attending college, the need for diversity of options both within and among institutions, and the strength of the American public commitment to education.

In a 1974 AAHE monograph, The Benefits Crisis in Higher Education, author Oscar T. Lenning clearly isolated the problem facing higher education as follows:

> New students as well as parents and the general public now are questioning the benefit of a college education as a result of these job placement problems. Factors such as the campus unrest of the late sixties also contributed to this growing lack of confidence in the benefits of higher education. Public pressure for accountability continues to mount, and colleges are being asked to explain some of the educational goals in their catalogs that they may not have carefully evaluated. Unfortunately, college officials have often been quite unprepared to provide effective documentation in response to such demands.[4]

We have been unable to provide hard data for Tennessee on a statewide basis--concerning what our graduates are doing and where, how many are employed, and how many are going on to school. There have been isolated efforts within the state, a good example of which is a survey of doctoral graduates conducted by UTK.[5] Units within institutions have often conducted such surveys as a part of accreditation efforts. But few institutions had data readily available on all or a representative sampling of their graduates, and there certainly has been no data available for answering state-level questions.

We have developed both institutional and state-level information systems that provide data on aptitudes, on enrollments, and on the numbers of graduates. But we have not had adequate institutional or state-level information on post-graduate activity of our graduates. How can we assess the effectiveness of the educational process without this feedback as one element? The answer is that we cannot. One important purpose of this survey has been to set in motion the development of information acquisition and analysis procedures to serve this need.

The Role of Higher Education

Today voices within the profession call out for a broader perspective on the role of higher education, one of the most eloquent being that of Howard Bowen. In a recent paper Bowen outlines some of the problems associated with the "manpower" approach to higher education. Among the economic fallacies cited by Bowen are these:

(1) First, the idea that the economy will require a more or less fixed inventory of occupational skills at each state of its evolution is false.

(2) A second economic fallacy is the assumption that valid predictions about the character of the economy and its skill requirements can be made for periods long enough to be pertinent to educational planning.

(3) A third false assumption is that unemployment is widespread among educated people.[6]

And among the moral issues associated with the problem are these three cited by Bowen:

(1) First, the freedom of each person to choose his area of study and his vocation, allowing for personal talents, interests, and market opportunities, and to develop his own capacity to the full, is surely one of the most sacred of all freedoms.

(2) A second morally questionable assumption is that the main purpose of education is to prepare people for quite specific

jobs, and that it is somehow wrong or wasteful to provide an education that will not be used directly in a vocation.

(3) Finally, there is confusion as to ends and means. Education is not designed to prepare people to do whatever work flows from the blind and predestined imperatives of technology; rather it is intended to produce people of vision and sensitivity, who will be motivated to direct technology into humanly constructive channels.[7]

These are seasoned and sensible arguments for both professional and public consideration; however, they must be considered within a balanced context. Manpower studies are essential to providing career counseling to students. A moral issue is raised by promoting enrollments in fields where few jobs are likely available in the future. The concern is clearly engaged in a recent article on the "Ethical Crisis in Higher Education" appearing in the June, 1974 Change magazine.[8]

We are ill-equipped to answer questions about the purpose and contribution of higher education. We can respond to some of these questions from a philosophical perspective, but our responses will have more force if they are supported by systematic data.

Research/Methodological Foundations for Survey

Most professionals in the field are familiar with the current emphasis on the "output" of higher education in contrast with past emphasis on input and process, for measuring effectiveness and quality. Such measures as student-faculty ratio, percentage of faculty with the doctorate, and E & G expenditure per FTE student may be valid indicators of the "quality of educational environment." But they do not provide much direct knowledge about the development of students--intellectual, social, personal, and aesthetic development.

Certain efforts aimed at studying the outputs of higher education must be noted. Most prominent among these is the provocative and controversial work of the National Center for Higher Education Management Systems (NCHEMS) of WICHE. Among the NCHEMS publications dealing with the outcomes are these:

(1) The Outputs of Higher Education: Their Identification, Measurement, and Evaluation[9]

(2) An Introduction to the Identification and Uses of Higher Education Outcome Information[10]

(3) The Higher Education Program Assessment Profiles[12]

(4) The Higher Education Outcome Measures Identification Study[11]

(5) Outcome Measures and Procedures Manual: Volume I[13]

A review of these publications reveals an intent to use student surveys as a means of obtaining selected outcome data; in fact, NCHEMS is already field testing an instrument, "Student Outcomes Questionnaire for Program Completers."

One of the key questions associated with the use of student feedback is the extent to which the pattern of responses might vary as a function of selected biographical, academic, and socio-economic variables. For example, might student satisfaction with the college experience vary with the student's academic performance, field of study, age, or educational/employment success following graduation? If student feedback is used as an outcome indicator, it will be important to know about such relationships. This survey explored these questions and contributed to the knowledge base now developing on higher education outcome measures in showing that student satisfaction does not change substantially with a range of variables.

The second research thrust upon which follow-up studies may be based is the longitudinal research program sponsored by the American Council on

Education.[14] Since the late 60's, the ACE has published each year a profile of personal and attitudinal data on entering freshmen. One of the more recent follow-ups of entering freshmen details some of the attitudinal changes that occur in these students over time:

> Four years after college entry, only 37 percent of former freshmen who entered the nation's junior colleges, senior colleges, and universities in 1967 had not obtained at least an associate degree. One-half of the women (51 percent) and two-fifths of the men (41 percent) had obtained a bachelor's degree.
>
> Degree aspirations tended to increase among the former freshmen, and particularly among women, over the four years since college entry. In 1967, 43 percent of all freshmen aspired to a master's degree, a Ph.D., or an Ed.D.; in 1971, almost one-half (49 percent) of the same group aspired to this advanced degree level.
>
> Less than one in ten students consider themselves as having dropped out of college "permanently"; more than one-fourth, however, claimed that they had dropped out "temporarily" during the four-year period.
>
> About two-fifths of those who initially entered a junior college, and one-fifth of those who entered a senior college or university, had transferred to another institution at some point during the four years after their entry to college.
>
> More than two-fifths of the students had overall grade point averages of "B" or better during their college career; only about one in twenty had an average of "C-" or less. Students enrolling in junior colleges tended to have lower grade point averages than their counterparts in senior college, and women consistently reported higher grade point averages than men at each type of institution.
>
> Most students (two-thirds) receive financial support from their parents for their undergraduate education, but more than half (56 percent) also helped support themselves through employment. Only one in ten had a Federal scholarship, fellowship, or grant; and less than one in five gained partial financial support through a Federal loan.
>
> During the undergraduate years, the choices of field or major study for the cohort shifted away from the professions, physical sciences, and engineering. The social sciences and education became more popular major fields of study between the freshman year in 1967 and four years later.

> Over the undergraduate years, students appear to become less inclined to strive for status and to seek financial success in later life. Instead, they increase their aspirations to succeed in artistic endeavors, and they become more inclined to want to be helpful to others.
>
> College freshmen generally become more liberal over the following four years with respect to both campus issues and wider social issues. In 1971, a majority of the former freshmen also believed that student evaluations should be used in administrative decisions regarding faculty (81 percent), and that undergraduate education would be improved if course work were made more relevant to contemporary living (72 percent) and if more attention were paid to the emotional growth of students (51 percent).[15]

The next to last of these findings would support Bowen's observation that the purposes of college are not just economic and financial but altruistic and personal as well. This is not to depreciate the economic reasons for attending college, but to point out that there are diverse reasons for attending.

Some of the questions in the Tennessee survey allow an examination of educational purpose as perceived by recent graduates. It is possible to explore perceptions of purpose as they relate to selected student characteristics such as age, field of study, post-graduate success, academic performance, and extracurricular involvements.

A third research framework against which this survey may be viewed is provided by the activities of the American College Testing Program (ACT).[16] Representative of that effort are the following monographs:

(1) The Educational Goals of College Bound Youth[17]

(2) Varieties of Accomplishment After College; Perspectives on the Meaning of Academic Talent[18]

(3) The Flow of High School Students to Schools, Colleges, and Jobs

(4) A Description of Graduates of Two-Year Colleges[20]

The first of these studies again supports the proposition that educational goals of students vary according to a number of academic and personal characteristics. Here is a summary of what some of these relationships are:

> Students who chose the goal of developing a philosophy had the highest ACT scores on three of the four tests and the highest composite. They had the third highest grades in all areas. Students who chose the goal of developing their personality had the second highest mean ACT scores in three of the four areas and had the highest grades in every area except social studies. Students who wished "to make a desirable marriage" had the lowest composite ACT score. Students who chose the goal of earning a higher income had the lowest mean scores on the ACT English test and the lowest grades in every area. Students who chose the goal of becoming a cultured person had the lowest mean scores on the ACT mathematics and natural science tests; their grades were above average.
>
> The differences among the groups tended to be small, but there were some differences worth comment. The students who chose the goal of developing their mind had at least one achievement in leadership more often than others. Students who were interested in marriage showed relatively little achievement in science, art, writing, and dramatic art. Students who chose the goal of becoming a cultured person showed more frequent achievement in leadership, music, and dramatic art. Students who chose the goal of developing their personality seldom reached high levels of achievement in science, art, leadership, and music. Students who chose the goal of developing a philosophy had slightly more frequent achievement in writing and dramatic art.[21]

The second study cited reveals an interesting and provoking relationship between grades and post college activity. An abstract describing that relationship is as follows:

> Recent studies show high school nonacademic accomplishments to be independent of academic talent, and to be related to similar kinds of college nonacademic accomplishments. College grades, however, have not been shown to be related to later-life accomplishments. The research reported here focuses on the accomplishments of young adults two years after college, and relates college admission data to these accomplishments. The adult accomplishments were found to be uncorrelated with academic talent, including test scores, high school grades, and college grades. However, adult accomplishments were related to comparable high school nonacademic accomplishments. This suggests that there are many kinds of talents related to later success which might be identified and nurtured by educational institutions. As we evaluate college outcomes in terms of postcollege student behaviors, we may have to reappraise the central role previously assigned academic talent.[22]

The Tennessee survey permits some assessment of the relationship between the nonacademic involvements of the student with employment and educational success.

In identifying research foundations for a survey of graduates, we should not fail to mention two other important efforts, one by the Carnegie Commission and one by Educational Testing Service. The perspectives of the two efforts are of special interest because they were conducted on two alumni groups whose graduation dates differed by a decade.

In 1968 the Carnegie Commission asked the National Opinion Research Center in Chicago to conduct a follow-up survey of 1961 graduates.[23] The sample for the 1968 study was a subsample of 6,005 from an original sample of 40,000 drawn in 1961. Authors Joe R. Spaeth and Andrew M. Greeley set the stage for the study by observing that these graduates entered college during the apathy of the Eisenhower years. This, as we shall see, is in dramatic contrast to the environment for graduates of the ETS study.

Findings of interest include variation in the perception of goals as a function of certain personal and academic variables. For example, graduates of less prestigious institutions tended to rate goals of personality development and career training higher than did graduates of higher prestige institutions. Social science and humanities graduates are more likely to be enthusiastic about the intellectual goals of higher education than graduates of other fields.

The utility of student feedback as an outcome measure became more evident in various ways. For example, graduates were positive about the institutions from which they graduated, but their enthusiasm tended to diminish over time. That is, their feeling was less positive in 1968 than in previous surveys conducted on the same sample.

Finally, the report suggests that those goals claimed in our college catalogs are generally more ambitious than our graduates think the colleges are capable of accomplishing. The inference is that, perhaps, we ought to be more parsimonious in what we claim to offer in the college experience.

Graduates of 1971 were surveyed in a project at the Educational Testing Service. The uniqueness in the environment of this class, a decade later than the group studied by Spaeth and Greeley, is nicely put by author Leonard Baird:

> The year before they entered high school there were massive civil rights demonstrations and John F. Kennedy was killed. While they were in high school, the United States moved in full scale war in Vietnam, and there were riots in Watts, Newark, and other cities across the country. As college freshmen they were stunned by the shootings of Martin Luther King and Robert Kennedy, and saw their fellow students at Columbia and San Francisco try to radicalize their colleges. As sophomores elated by the first men on the moon, they may have been frustrated by the lack of results of the first Vietnam moritorium day and nauseated by the civil war in Biafra. As juniors they spent a spring of Cambodian invasion, national guard shootings at Kent State, and police shootings at Jackson State. And as seniors...these students saw the image of American purity tarnished by My Lai and saw another American invasion, this time into Laos, and may have participated in protests against it.[24]

The first part of this investigation was a survey of 21,000 seniors from a representative sampling of institutions. Those surveyed completed the first questionnaire on personal characteristics and plans in the spring of 1971. One year later, in the spring of 1972, a subsample of this original population was again surveyed to develop a report on activities and views one year after college, with special emphasis on the responses of those who had gone on to graduate school.[25] A favorable evaluation of graduation and professional school performance concludes the second of these reports but those students going on for advanced study singled out certain areas for criticism. These included admissions criteria and processes, orientation of new graduate students, and the relationship of program activities to the practical realities of the

world in which the students expected to work.

Of methodological interest in the ETS investigation was the opportunity for students to include open-ended responses. Good use is made of these in the analysis. Student comments such as the following: "Entrance requirements should be stricter and more people should be flushed out," and "I consider this school an intellectual cesspool" clearly convey more feeling than a checked response and percentage distribution.

Opportunity for content analysis of such open-ended responses was a part of this Tennessee survey. The two open-ended questions are designed to provide both positive and critical feedback.

In closing this overview, we may ask what the experience of other states has been. We have already pointed out that institutions have made use of graduate surveys, though relatively few of them do so on a recurring basis so that data from the surveys are applied in institutional decision making. At least one exception to that is the work now being done at the University of Illinois, where graduate follow-up data are made available to a variety of internal users, for academic evaluation and for other planning activities.[26]

At the state level an informal contact indicates few, if any, states have yet conducted a comprehensive survey of its graduates on either a one-time or recurring basis. A more formal inquiry now in progress will verify this finding. There have been, however, state level surveys in selected sectors. For example, the Maryland State Board for Community Colleges has recently completed a survey of those students who entered the state's community colleges in 1970.[27] The Division of Community Colleges of the Florida Department of Education has set in motion a system for conducting follow-up of its community college graduates.[28] And the Board of Regents for the State of Kansas has conducted two follow-up surveys for six senior institutions of

that state.[29]

It is clear, however, that no state presently has a data system at its command that will provide comprehensive, systematic, and timely data on graduates. It is equally clear that availability of graduate follow-up data at both the institutional and state level may be expected to grow more essential.

One manifestation of this need is indicated in a 1975 monograph by Fred Harcleroad, former President of the ACT Program and now Director of the Center for Higher Education at the University of Arizona, and Frank Dickey, Chancellor of the University of North Carolina at Charlotte.[30] Entitled Education, Auditing, and Voluntary Institutional Accrediting, the publication of experienced voices in higher education suggest an "audit" of the functioning of educational programs very much like the current auditing of accounting and financial operations. Such evaluation of educational functions, they counsel, will be an important step in restoring the confidence of the public in higher education.

Cited in that same monograph is a paper by Claude E. Puffer entitled Study of Regional Accreditation of Institutions of Higher Education. Among the questions suggested for future institutional accrediting is this one:

> What do your analytical studies show concerning the effectiveness of your educational programs? What direct evidence do you have of institutional contributions to or responsibility for improvements in your students? What tests or other measuring devices are used and how effective and appropriate are they?[31]

This is a question that can be posed at the state level, the governing board level, the institutional level, and the program level. It certainly seems improbable that feedback from students will not be one of those analytical elements needed to assess effectiveness at any of those levels.

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APPENDIX C

SURVEY PROCEDURES AND METHODOLOGY

SURVEY PROCEDURES AND METHODOLOGY

Planning for the survey began early in 1975. Representatives from the American College Testing Program and the National Center for Higher Education Management Systems were involved in the development of the survey instrument pilot tested first on three campuses by three doctoral students in early spring and then subsequently revised. The final version of the survey instrument is shown in Appendix A.

The chief executive officer of each institution designated an institutional representative to assist in the survey. These persons met in Nashville in May to receive instructions about each institution's responsibilities.

The survey sample was drawn from the THEC master file on 1973-74 graduates. All associate and doctorate degree holders were included in the survey with the exception of medical school graduates. One-third of bachelor and master graduates were selected for the survey by using a stratified random sample to insure proper representation by major field of study. Appendix D shows the total number of 1973-74 graduates by degree level, field of study, and institution and the corresponding number included in the survey. Graduates were aggregated by broad field of study rather than by departments or majors to insure a sufficient sample size.

Institutions were provided a list of graduates identified by social security number and were asked to provide the last permanent mailing address. Questionnaires were sent to students from the Commission, the first mailing being in July, 1975. Mailing labels bore a "Postmaster Please Forward" message in an attempt to reach a mobile population. A second mailing to non-respondents followed in the last week of August, 1975 containing another

questionnaire and a separate letter encouraging response.

An intensive effort to identify more current addresses began after the second mailing because several hundred questionnaires were returned as undeliverable. Each institution furnished recent address changes after receiving a listing of non-respondents but even this effort got limited response. A postcard mailing in October, 1975 identified additional graduates willing to participate and responses to this follow-up completed the data collection.

Usable responses were received from 4,154 graduates or better than 53% of the sample. Of the 7,800 graduates selected for the survey, about 800 never received questionnaires because of a lack of a current address. Removing these graduates from statistical consideration would boost the response rate to better than 59%. An analysis of responses shows balanced distribution across degree levels, institutions, and major fields. Considering the highly mobile population surveyed and the time elapsed between graduation and the survey, the response rate was most satisfactory.

APPENDIX D

SURVEY POPULATION, SAMPLE, AND RESPONDENTS

DISTRIBUTION OF GRADUATES, OF THOSE SENT SURVEYS, AND OF RESPONDENTS
NUMBERS OF GRADUATES BY DEGREE LEVEL

Systems/Institutions	Associate			Bachelor			Master			Doctoral		
	Grad.	Survey Sent	Respond.	Grad.	Survey Sent	Respond.	Grad.	Survey Sent	Respond.	Grad.	Survey Sent.	Respond.
State Board of Regents												
Austin Peay	24	24	12	594	203	107	100	35	22	0	0	0
East Tennessee	105	105	57	1,448	489	279	315	109	69	5	5	5
Memphis State	86	86	39	1,967	662	299	933	316	157	229	229	83
Middle Tenn. State	34	34	18	1,535	519	290	528	180	98	4	4	4
Tenn. State	35	35	11	619	211	54	139	50	19	0	0	0
Tenn. Tech.	0	0	0	944	320	169	217	74	38	20	20	15
Chattanooga	110	110	50	0	0	0	0	0	0	0	0	0
Cleveland	225	225	113	0	0	0	0	0	0	0	0	0
Columbia	206	206	94	0	0	0	0	0	0	0	0	0
Dyersburg	106	106	51	0	0	0	0	0	0	0	0	0
Jackson	144	144	81	0	0	0	0	0	0	0	0	0
Motlow	149	149	85	0	0	0	0	0	0	0	0	0
Roane	71	71	53	0	0	0	0	0	0	0	0	0
Shelby	25	25	8	0	0	0	0	0	0	0	0	0
Volunteer	129	129	72	0	0	0	0	0	0	0	0	0
Walters	148	148	82	0	0	0	0	0	0	0	0	0
SBR Totals	1,597	1,597	826	7,107	2,404	1,198	2,232	764	403	258	258	107
University of Tennessee												
Knoxville	0	0	0	3,639	1,219	670	1,222	414	225	538	538	243
Chattanooga	0	0	0	626	215	120	115	39	19	0	0	0
CHS	33	33	21	221	74	44	14	5	2	0	0	0
Martin	52	52	31	654	223	128	117	40	28	0	0	0
Nashville	95	95	36	137	48	32	25	9	6	0	0	0
U.T. Totals	180	180	88	5,277	1,779	994	1,493	507	280	538	538	243
Grand Totals	1,777	1,777	914	12,384	4,183	2,192	3,725	1,271	683	796	796	350

APPENDIX E

INSTITUTIONAL REPRESENTATIVES

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Austin Peay State University
Dr. William Ellis

East Tennessee State University
Dr. Jerry Rust

Memphis State University
Dr. David Vaught

Middle Tennessee State University
Dr. Frank Yates

Tennessee State University
Dr. Rex Butler

Tennessee Technological University
Dr. Hoyle Lawson

Chattanooga State Community College
Mr. Hank Cooper

Cleveland State Community College
Dr. Ray Coleman

Columbia State Community College
Dr. Richard Cooper

Dyersburg State Community College
Mr. Roy Jones

Jackson State Community College
Mr. Durward Denley

Motlow State Community College
Dr. Bryan Burgess

Roane State Community College
Dr. Fred Martin

Shelby State Community College
Mr. Wylie Lynch

Volunteer State Community College
Mr. Wade Powers

Walters State Community College
Mr. Bill Hodges

University of Tennessee at Chattanooga
Dr. John True

University of Tennessee Center for the Health Sciences - Dr. Sam Bozeman

University of Tennessee at Knoxville
Dr. Howard Aldman

University of Tennessee at Martin
Mrs. Martha Williams

University of Tennessee at Nashville
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